KANSAS DEPARTMENT OF TRANSPORTATION

COMPUTATION SHEET

Project Belleville KDOT Yard & Parking Lot Br. No. _____ County Republic

Type of Work 2.0" Mill w/ 2.0" OL HMA Comm Gr Class A Subject 402's Change in Plans No. _____

Mobilization 10% ($204,900.00 X 10%) = $20,490.00 **Pay = $21,000**

Milling Quantities SqYd **Pay = 925 SqYd**

East Yard	172.66 SqYd
North section of Yard	91.33 SqYd
Equipment Shed	533.33 SqYd
Frontage Road and Main Entrance	127.00 SqYd
	924.32 SqYd

Asphalt Quantities

2.0" nominal Inlay/Overlay HMA Commercial Grade (Class A) **Pay = 2049 Tons**

(Includes HMA for Equipment Shed)

1. East Yard	7,450.71 SqYd
2. Around new Addition	1,443.22 SqYd
3. North section of Yard	4,553.42 SqYd
4. Frontage Road and Main Entrance	1,612.50 SqYd
5. West Parking Lot	2,003.72 SqYd
6. Salt/Sand Shed	163.22 SqYd
	17,226.79 SqYd

(9 SqFt x 0.1667' x 145 #/CuFt) ÷ 2000#/CuFt = 0.1088 Tons / SqYd

17,226.79 SqYd X 0.1088 Tons / SqYd = 1874.27 Tons

6.0" nominal Inlay/Overlay HMA Commercial Grade (Class A)

1. Equipment Shed 533.33 SqYd

(9 SqFt x 0.5' x 145 #/CuFt) ÷ 2000#/CuFt = 0.3263 Tons / SqYd

533.33 SqYd x 0.3263 Tons/SqYd = 174.03 Tons 174 Tons

1874.27 Tons + 174 Tons = 2048.27 Tons

WORKING DAYS

Milling	390.99 SqYd x 0.17' x 145 / 2000#/ ton = 4.82 Tons	1.0 days
	533.33 SqYd x 0.5' x 145 / 2000#/ ton = 19.33 Tons	1.0 days
Asphalt	2,049 tons / 1,500 tons/day = 1.37	4.0 days
Mobilization		1.0 days
	Total	**7.0 Days**

USE 15.00 Days

Computed by RFarrell 7-23-2013 Checked by DZ 7-31-13

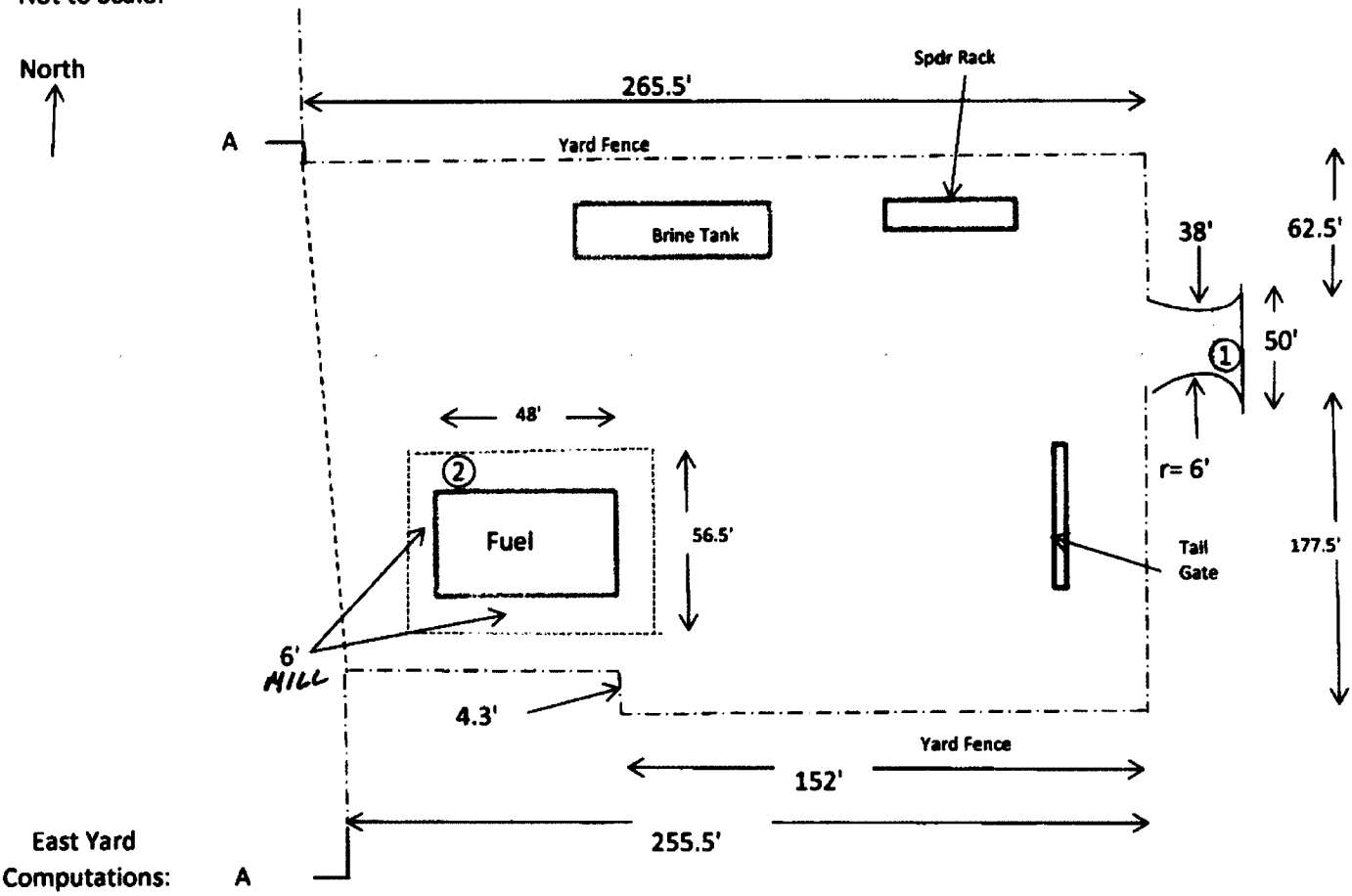
Approved by _____ Date Approved 8/2/13

Kansas Department of Transportation
Computation Sheet

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No. _____

East Yard Computations
Not to Scale:



East Yard

Milling Computations: A

①	50' x 6' ÷ 9 SqFt/SqYd =	33.33 SqYd
②	2 x ((48' x 6') + (56.5' x 6')) ÷ 9 SqFt/SqYd =	139.33 SqYd
Total		172.66 SqYd

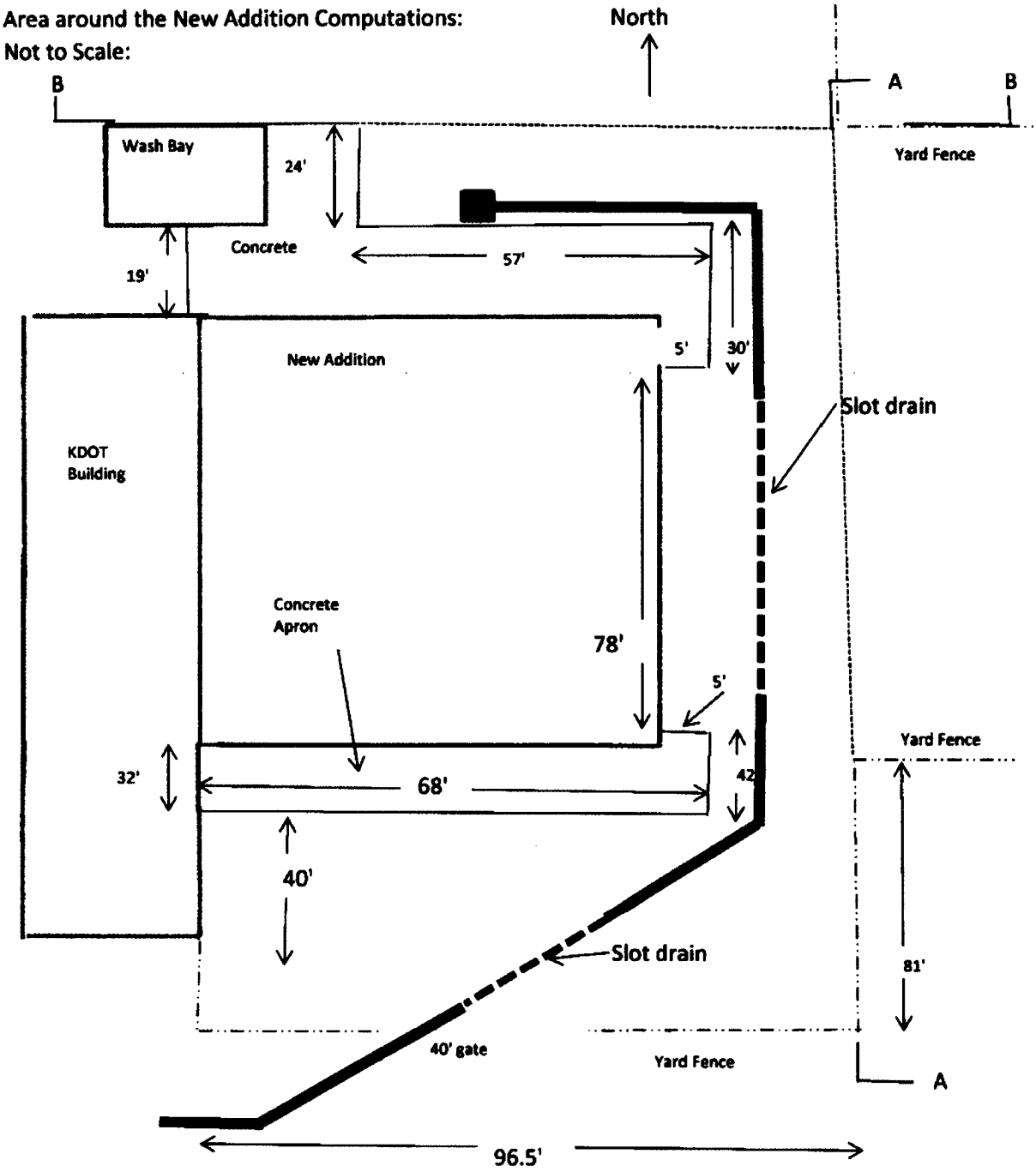
Computed By: RLF 7-25-13 Checked By: M. ACKLEE 7-25-13

Approved By: _____ Date Approved: 8/2/13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No. _____

Area around the New Addition Computations:
Not to Scale:



Contractor shall maintain drainage into slot drains around new addition area.

Computed By: RLF 7-23-13 Checked By: _____

Approved By: _____ Date Approved: 7-23-13

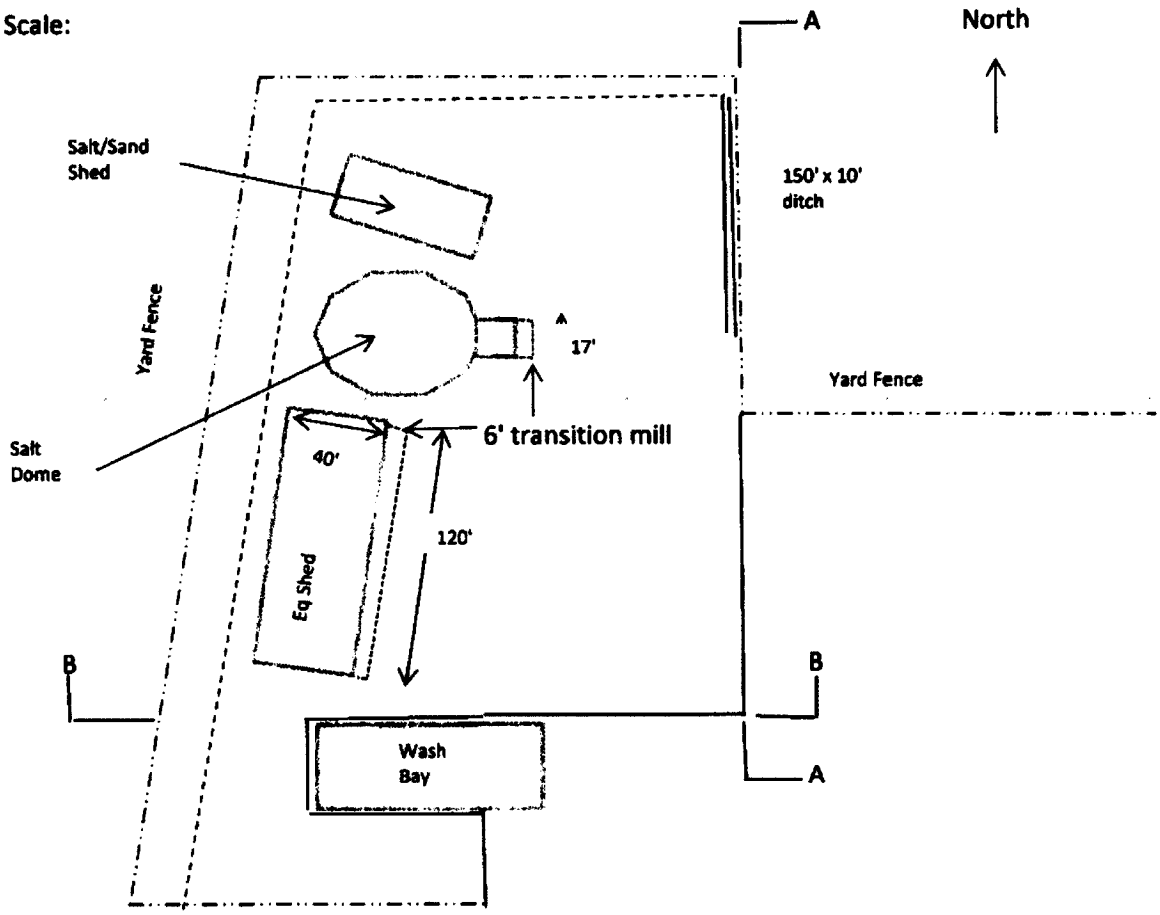
Kansas Department of Transportation
Computation Sheet

Project D-9999-14 BR. No. _____ County: Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No. _____

Computations for North Section of Belleville Yard:

Not to Scale:



Milling

17' x 6' = 102 SqFt

120' x 6' = 720 SqFt

822 SqFt

822SqFt ÷ 9 SqFt/SqYd = 91.33 SqYd

Entrance to Salt dome shall be milled to tie in smoothly with 2" yard overlay.

6 inch floor of the equipment shed shall transition into the 2" yard overlay.

Equipment shed milling shown on sheet 5 of 13.

Computed By: RLF Checked By: DZ 7-31-13

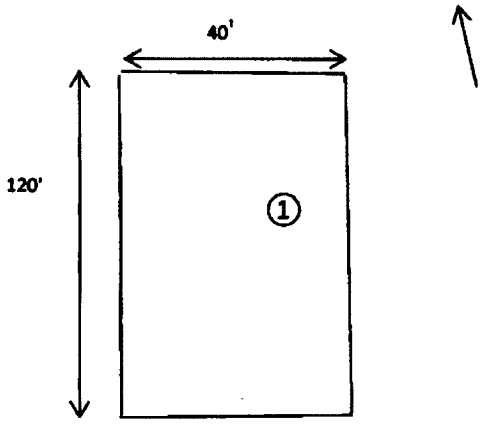
Approved By: JW Date Approved: 8/8/13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.___

Computations for Equipment Shed: North

Not to Scale:



Milling Computations:

① 120' x 40' ÷ 9SqFt/ SqYd 533.33 SqYd

Final asphalt in the Equipment shed is to be 6 inches deep. The inside of the shed is to be profile milled to allow the top of the asphalt to be level with the bottom of the 2" x 6" Base board around the inside perimeter of the shed. Water should drain to the East and not pond inside the shed.

Computed By: RLF 7-23-13 Checked By: _____

Approved By: _____ Date Approved: 7-23-13

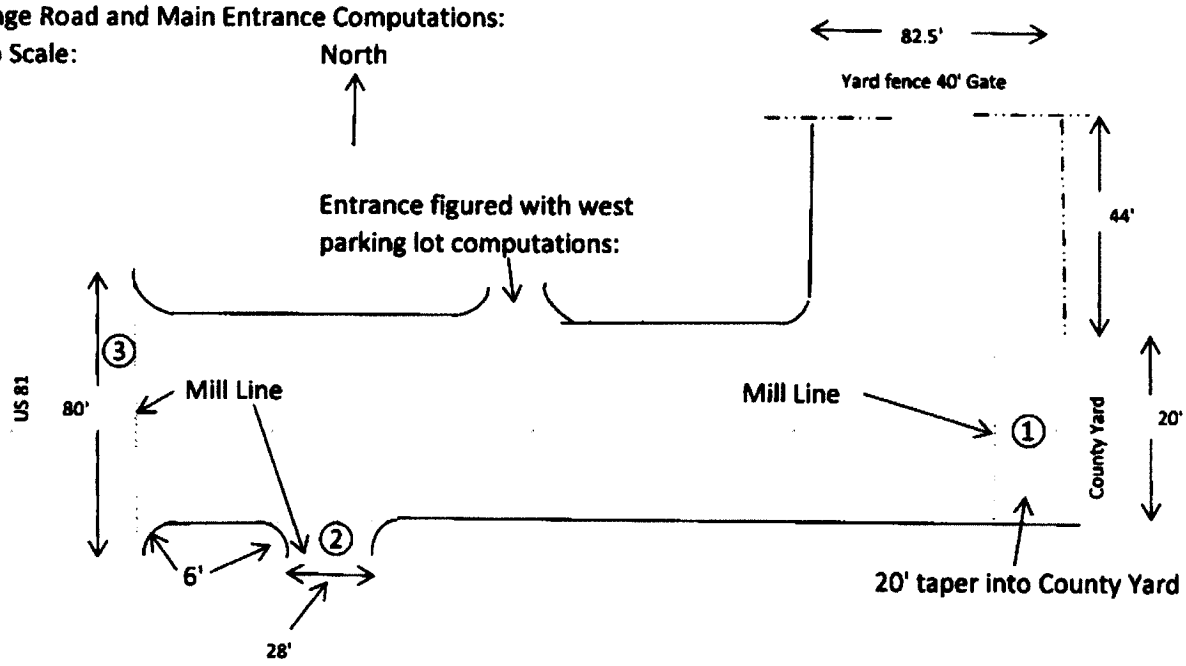
Kansas Department of Transportation
Computation Sheet

Project D-9999-14 BR. No. _____ County: Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No. _____

Frontage Road and Main Entrance Computations:

Not to Scale:



Milling Computations:

①	82.5' 6' ÷ 9 SqFt/SqYd=	55.00 SqYd
②	28' x 6' ÷ 9 SqFt/SqYd=	18.67 SqYd
③	80' x 6' ÷ 9 SqFt/SqYd=	53.33 SqYd
		127.00 SqYd

Computed By: RLF 7-23-13 Checked By: _____

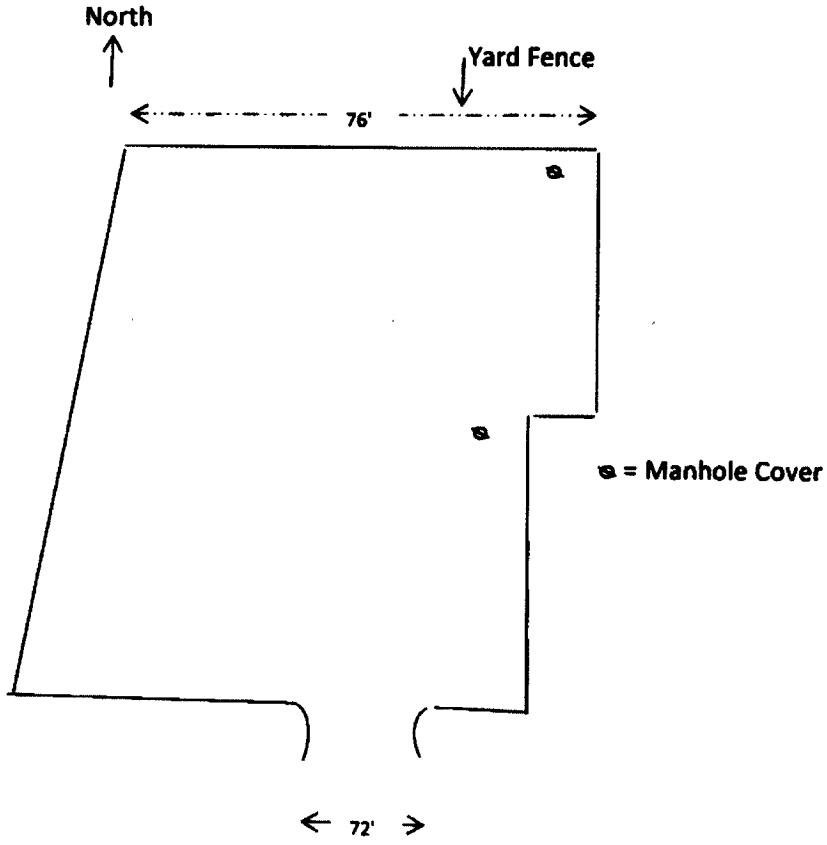
Approved By: _____ Date Approved: 7-23-13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No. _____

Computations for West Parking Lot:

Not to Scale:



Milling Computations:

No milling required in the west parking lot. Note manhole covers to work around.

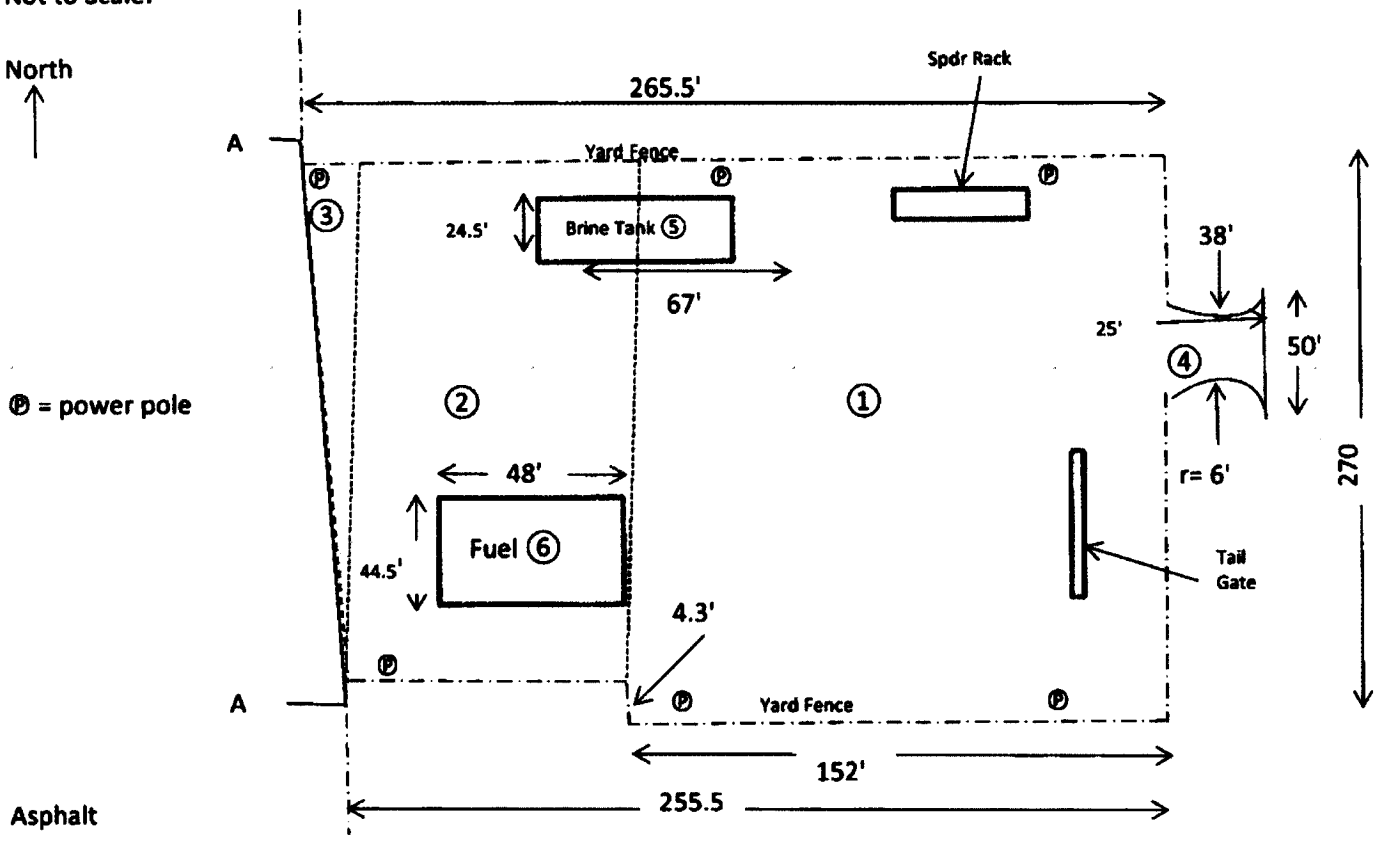
Computed By: RLF 7-23-13 Checked By: ✓

Approved By: ✓ Date Approved: 7-23-13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans _____

East Yard Computations
Not to Scale:



Asphalt
East Yard

①	152' x 270'=	41,040.00	SqFt
②	103.5' x 265.7' =	27,499.95	SqFt
③	1/2 x 10' x 265.7'=	1,328.50	SqFt
	Entrance		
④	25' x 38' =	950.00	SqFt
	2 x (r^2-(¶r^2/4)=		
	2 x (6^2-(3.14 x 6^2/4)=	15.48	SqFt
	Total Area	70,833.93	SqFt
	Minus Concrete areas		
⑤	Brine tank 24.5' x 67' :	-1,641.50	SqFt
⑥	Fuel 44.5' x 48' :	-2,136.00	SqFt
	Total	-3,777.50	SqFt

70,833.93 SqFt - 3,777.5 SqFt = 67,056.43 SqFt

67,056.43 ÷ 9 SqFt/SqYd = 7,450.71 SqYd

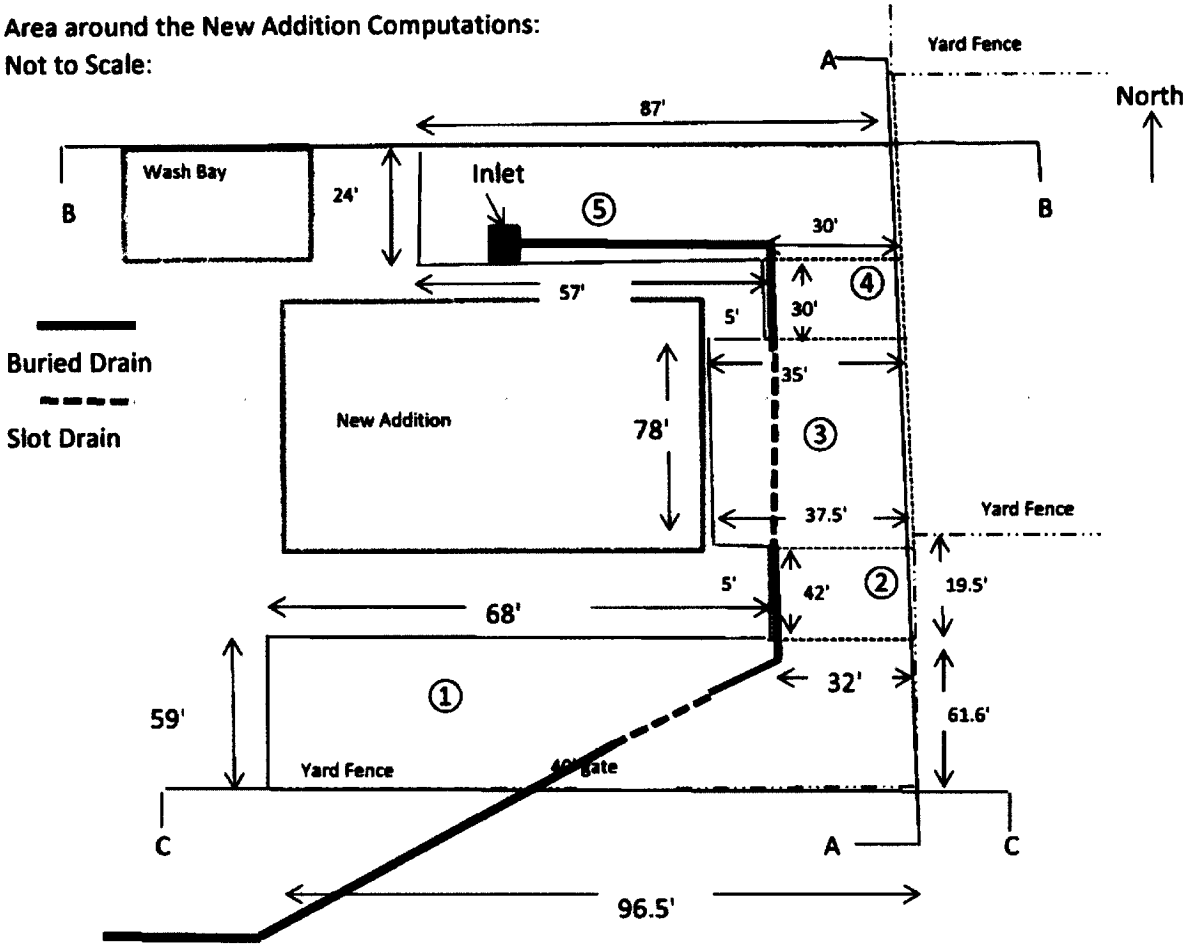
Computed By: RCF Checked By: M. ACKIRE 7-25-13

Approved By: _____ Date Approved: 8-02-13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.__

Area around the New Addition Computations:
Not to Scale:



Asphalt Computations:

①	(59'+61.6')/2 x 96.5' =	5,818.95 SqFt
②	42' x((32'+32.5')/2) =	1,354.50 SqFt
③	78' x ((37.5'+ 35')/2) =	2,827.50 SqFt
④	30' x 30' =	900.00 SqFt
⑤	87' x 24' =	2088.00 SqFt
	Totals	12,988.95 SqFt

12,988.95 SqFt ÷ 9 SqFt / SqYd = 1,443.22 SqYd

Contractor to maintain drainage ~~around areas of~~ In to slot drains.

Computed By: RLF 7-25-13 Checked By: M. ALKIRE 7-25-13

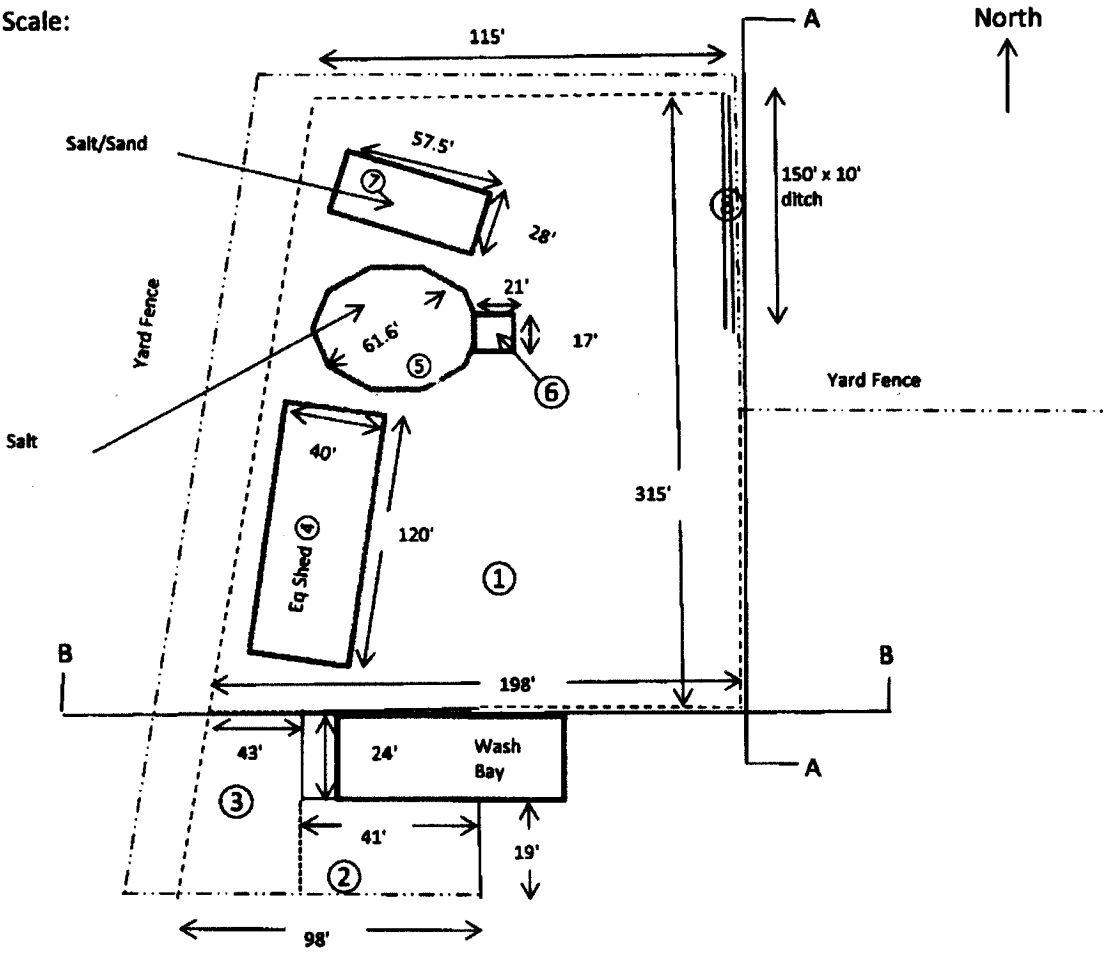
Approved By: _____ Date Approved: 8/5/13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No._

Computations for North Section of Belleville Yard:

Not to Scale:



Asphalt Computations:

①	315' X ((198' + 115')/2)=	49,297.50	SqFt
②	41' x 19' =	779.00	SqFt
③	43' x ((57' + 43')/2)=	2,150.00	SqFt
	Totals	52,226.50	SqFt

Minus Building Areas:

④	Equipment Shed	120' x 40' =	4,800.00	SqFt
⑤	Salt Dome	(61.6' / 2)² x 3.14 =	2,978.73	SqFt
⑥	Salt Entrance	21' x 17' =	357.00	SqFt
⑦	Salt/Sand Shed	57.5' x 28' =	1,610.00	SqFt
⑧	Drainage Ditch	150' x 10' =	1,500.00	SqFt
	Totals		11,245.73	SqFt

52,226.5 SqFt - 11,245.73 SqFt = 40,980.77 SqFt

40,980.77 SqFt ÷ 9 SqFt/SqYd = 4,553.42 SqYd

Computed By: 7-23-13 CLF Checked By: _____

Approved By: _____ Date Approved 7-23-13

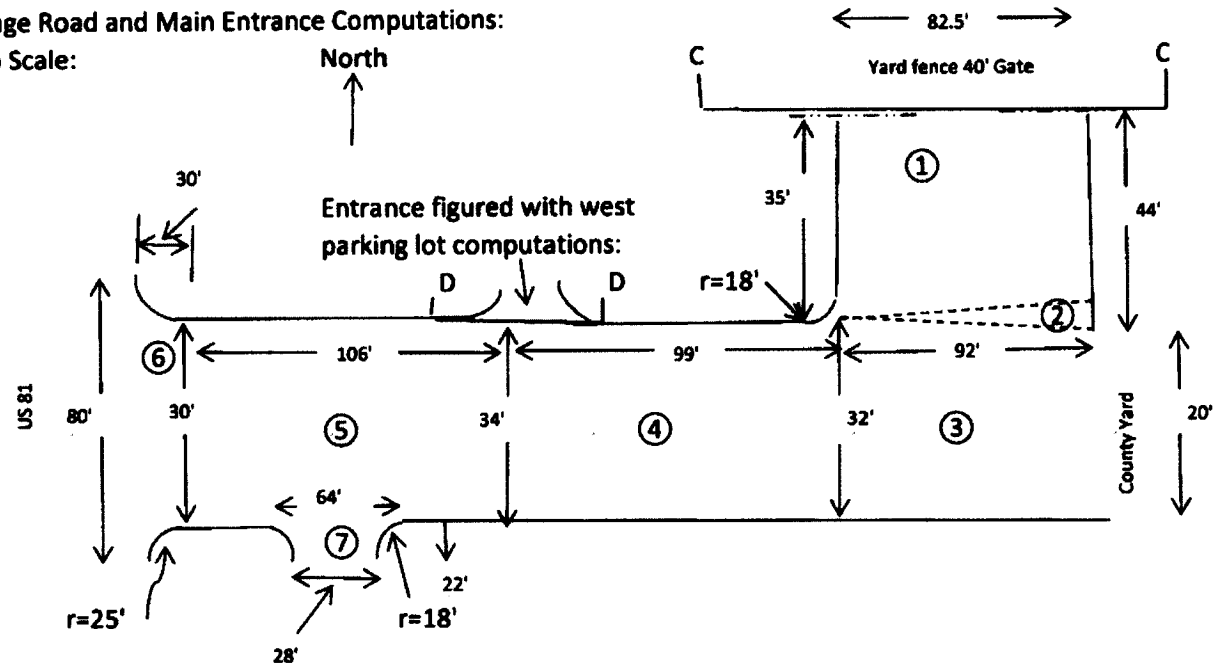
Kansas Deptmartment of Transportation
Computation Sheet

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.__

Frontage Road and Main Entrance Computations:

Not to Scale:



Asphalt Computations:

①	35' x ((82.5' + 92')/2)=	3,053.75 SqFt
②	0.5 x 9' x 92'=	414.00 SqFt
	$r^2-(\P r^2/4)$=	
	$18^2-(3.14 \times 18^2/4)$=	69.66 SqFt
③	92' x ((20'+32')/2)=	2,392.00 SqFt
④	99' x ((32'+34')/2)=	3,267.00 SqFt
⑤	106' x ((34'+30')/2)=	3,392.00 SqFt
⑥	30' x 30'=	900.00 SqFt
	2 x($r^2-(\P r^2/4)$)=	
	2 x ($25^2-(3.14 \times 25^2/4)$)=	268.75 SqFt
⑦	28' x 22'=	616.00 SqFt
	2 x ($18^2-(3.14 \times 18^2/4)$)=	139.32 SqFt
		14,512.48 SqFt

14,512.48 SqFt ÷ 9 SqFt/SqYd = 1,612.50 SqYd

Computed By: RLF 7-23-13 Checked By: _____

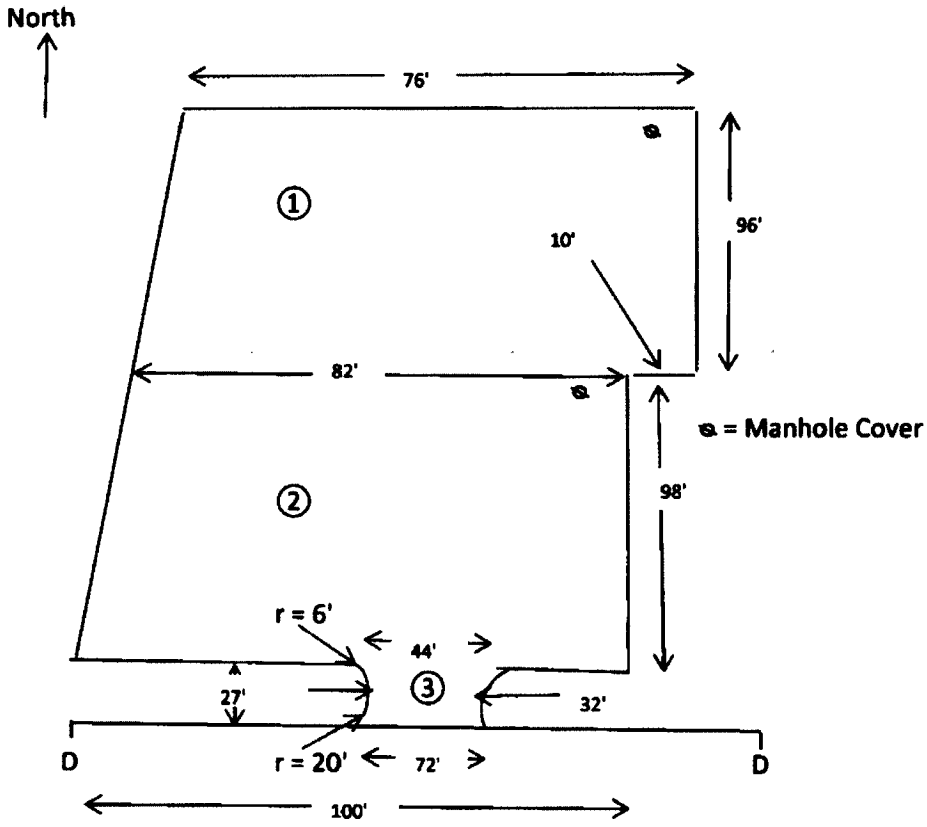
Approved By: _____ Date Approved 7-23-13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.__

Computations for West Parking Lot:

Not to Scale:



Asphalt Computations:

①	96' x ((76' +92')/2)=	8,064.00	SqFt
②	98' x ((82' + 100')/2)=	8,918.00	SqFt
③	27' x 32'=	864.00	SqFt
	2 x (r^2-(¶r^2/4)=		
	2 x (6^2 -(3.14 x 6^2/4)=	15.48	SqFt
	2 x (20^2-(3.14 x 20^2/4)=	172.00	SqFt
Totals		18,033.48	SqFt

18,033.48 SqFt ÷ 9 SqFt/SqYd = 2,003.72 SqYd

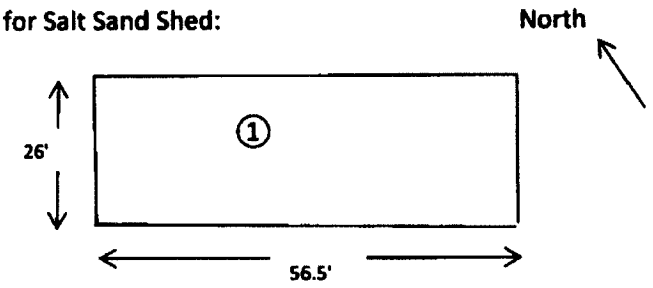
Computed By: RLH 7-23-13 Checked By: _____

Approved By: _____ Date Approved 7-23-13

Project D-9999-14 BR. No. _____ County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.__

Computations for Salt Sand Shed:
Not to Scale:

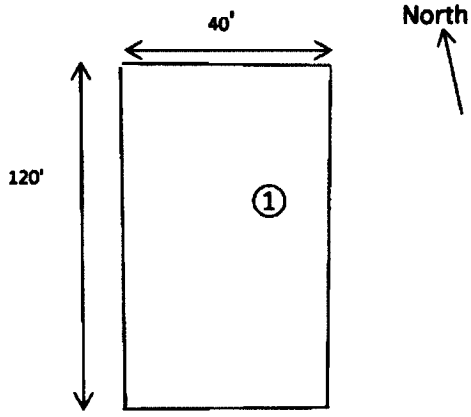


① 26' x 56.5' = 1,469 SqFt

1,469 SqFt ÷ 9 SqFt/SqYd = 163.22 SqYd

Asphalt in Salt Sand shed to be 2 inches deep.

Computations for Equipment Shed:
Not to Scale:



Asphalt Computations:
① 120' x 40' = 4,800 SqFt

4,800 SqFt ÷ 9 SqFt/SqYd = 533.33 SqYd
Asphalt in Equipment shed to be 6 inches deep.

Computed By: RF 7-25-13 Checked By: M. Akire 7-25-13
Approved By: _____ Date Approved 8-23-13